

any appropriate location on the firearm, preferably so long as display 10 is easily visible. For larger firearms, size and location may become less important. As will be appreciated, microcontroller 6 and display 10 do not have to be mounted to the firearm. The present invention can also be adapted for use on devices other than firearms to count cycle rates, so long as there is sufficient acceleration/movement of the device to cause the invention to generate a signal in response to the acceleration/movement. For example, the present invention could be used to count the closing of a door, or other repetitive movement of almost anything.

In summary, numerous benefits have been described which result from employing the concepts of the invention. The foregoing description of a preferred embodiment of the invention has been presented for purposes of illustration and description. It is not intended to be exhaustive or to limit the invention to the precise form disclosed. Obvious modifications or variations are possible in light of the above teachings. The embodiment was chosen and described in order to best illustrate the principles of the invention and its practical application to thereby enable one of ordinary skill in the art to best utilize the invention in various embodiments and with various modifications as are suited to the particular use contemplated. It is intended that the scope of the invention be defined by the claims appended hereto.

I claim:

1. A firearm monitoring device for attaching to a firearm, said firearm having a firing end and a grip end, and said firearm being susceptible to recoil when discharged, comprising:

- a) first means for creating a first signal in response to substantially each recoil of said firearm; and
- b) second means for receiving each said first signal and generating a second signal indicative of the number of said first electrical signals received by said second means;

wherein said first means comprise an inertia switch comprising a movable mass; and wherein said mass is resiliently biased toward the firing end of the firearm.

2. The device of claim 1 comprising display means for receiving said second signal and generating a display in response to said second signal.

3. The device of claim 2 wherein said display is an audible display.

4. The device of claim 2, wherein said display is positioned such that it is visible to a user of the firearm while firing in a direction away from the user.

5. The device of claim 1, the movement of said mass being generally confined to movement along a straight line.

6. The device of claim 5 wherein said firearm includes a bore through which a round of ammunition is discharged, said straight line being generally parallel to said bore.

7. The device of claim 1 wherein said second means include means for counting down by one in response to each said first signal beginning from a predetermined number.

8. The device of claim 7 wherein said second means include means for changing said predetermined number.

9. The device of claim 1 wherein said second means include means for maintaining a total count of the number of said first signals received from said first means.

10. The device of claim 1 wherein said second means comprise a microcontroller adapted to count each said first signal received by said microcontroller.

11. The device of claim 10 wherein said second means further comprise a communication port, wherein information may be stored in and accessed from the microcontroller via the communication port.

12. The device of claim 1 wherein the removable mass is detached and free-floating.

13. The device of claim 1, wherein the inertia switch comprises a substantially cylindrical housing and a spring.

14. A firearm in combination with a monitoring device, said firearm having a firing end and a grip end, and said firearm being susceptible to recoil when discharged, said monitoring device comprising:

- a) first means for creating a first signal in response to substantially each recoil of said firearm; and
- b) second means for receiving each said first signal and generating a second signal indicative of the number of said first electrical signals received by said second means;

wherincin said first means comprise an inertia switch comprising a movable mass; and wherein said mass is resiliently biased toward the firing end of the firearm.

15. The combination of claim 14 wherein said firearm includes a bore through which a round of ammunition is discharged, and the movement of said mass being generally confined to movement along a straight line generally parallel to said bore.

16. The combination of claim 14 wherein said second means include means for counting down by one in response to each said first signal beginning from a predetermined number.

17. The combination of claim 16 wherincin said second means include means for changing said predetermined number.

18. The combination of claim 14 wherein said second means include means for maintaining a total count of the number of said first signals received from said first means.

19. The combination of claim 14 wherein said second means comprise a microcontroller adapted to count each said first signal received by said microcontroller.

20. The combination of claim 19 wherein said second means further comprise a communication port, wherein information may be stored in and accessed from the microcontroller via the communication port.

21. The device of claim 14 wherein the movable mass is detached and free-floating.

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